



MDF-U731M-PE

# Biomedical

-30°C Freezer

690 L

## Stable -30°C environment with extensive storage possibilities

The MDF-U731M is a large-capacity, biomedical freezer, with a direct cooling system and manual defrost. This freezer is designed with optimised features for laboratory-grade freezing of enzymes, vaccines, and other biologics.

### Precise & Uniform Storage

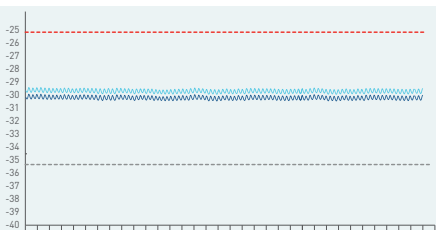
A microprocessor controller ensures precise and uniform storage temperatures regardless of ambient conditions. Manual defrost provides stable temperature control without transient temperature increases.

### Extensive Storage Options

Adjustable shelving accommodates a range of different storage options for a wide number of applications. Optional plastic containers and extra shelves are ideal for storing a variety of different types of samples while inventory racking systems can be used for storage of cryoboxes.

### Excellent Sample Security

A comprehensive visual and audible alarm system with remote alarm contacts ensures users are aware of any abnormalities and can take appropriate actions. A keyed door lock with provision for an optional padlock ensures sample security.



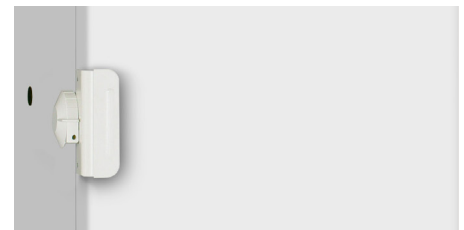
### Temperature Sensitive Samples

Optimum uniformity and stability are ideal for storage of samples that are highly sensitive to temperature fluctuations.



### A Flexible Solution

The flexible storage possibilities and adjustable temperature range can accommodate both current and future storage needs of growing laboratories.



### Valuable Sample Storage

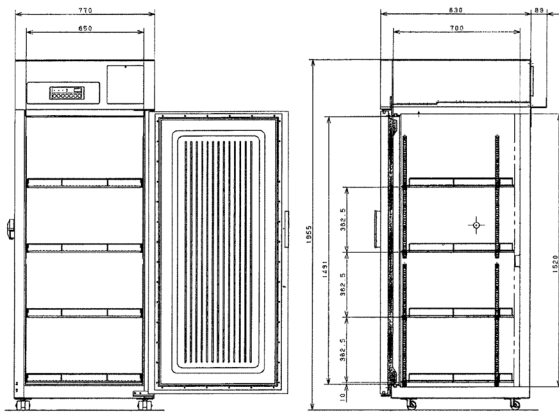
An ideal storage solution for valuable samples such as those in the pharmaceutical, biotechnology and medical research fields.

# BIOMEDICAL -30°C Freezer



## Uniform & Stable Temperature Control

The large capacity MDF-U731M-PE features direct cooling with a full cold wall design. The evaporator pipes are strategically designed to surround the cabinet in a way that prevents warm or cold spots and therefore ensures superior uniformity throughout the freezer. As well as providing optimum uniformity, the cold wall technology also ensures maximum protection by providing a rapid temperature recovery after door opening.



| Model Number  |          | MDF-U731M-PE                        |
|---|----------|-------------------------------------|
| External dimensions [W x D x H] <sup>1)</sup>                 | mm       | 770 x 830 x 1950                    |
| Internal dimensions [W x D x H]                               | mm       | 650 x 700 x 1520                    |
| Volume  | litres   | 690                                 |
| Net weight  | kg       | 152                                 |
| Capacity  | 2" boxes | 384                                 |
| Performance   |          |                                     |
| Cooling performance <sup>2)</sup>                             | °C       | -30                                 |
| Temperature setting range                                     | °C       | -18 to -35                          |
| Temperature control range <sup>2)</sup>                       | °C       | -20 to -30                          |
| Control   |          |                                     |
| Controller  |          | Microprocessor, non-volatile memory |
| Display   |          | LED                                 |
| Temperature sensor  |          | Thermistor                          |
| Refrigeration   |          |                                     |
| Refrigeration system*   |          | Direct                              |
| Compressors   | W        | 400                                 |
| Refrigerant   |          | R-404A                              |
| Refrigerant weight  | g        | 260                                 |
| GWP of refrigerant for each cooling circuit                   |          | 3922                                |
| Total Refrigerant weight [CO <sub>2</sub> equivalent]         | t        | 1.020                               |
| Insulation material   |          | PUF                                 |
| Insulation thickness  | mm       | 60                                  |
| Construction  |          |                                     |
| Exterior material   |          | Painted Steel                       |
| Interior material   |          | Painted Steel                       |
| Outer door  | qty      | 1                                   |
| Outer door lock   |          | Y                                   |
| Inner doors   | qty      | -                                   |
| Shelves   | qty      | 4                                   |
| Max. load - per shelf   | kg       | 50                                  |
| Max. load - total   | kg       | 200                                 |
| Access port   | qty      | 1                                   |
| - position  |          | Left                                |
| - diameter  | ∅ mm     | 30                                  |
| Casters   | qty      | 4 (2 leveling feet)                 |
| Alarms (R = Remote Alarm, V = Visual Alarm, B = Buzzer Alarm) |          |                                     |
| Power failure   |          | V-B-R                               |
| High temperature  |          | V-B-R                               |
| Low temperature   |          | V-B-R                               |
| Door open   |          | V-B                                 |
| Electrical and noise level                                    |          |                                     |
| Power supply  | V        | 230                                 |
| Frequency   | Hz       | 50                                  |
| Noise level <sup>3)</sup>                                     | dB [A]   | 42                                  |
| Options   |          |                                     |
| Storage containers  |          | MDF-T07SC-PW (set of 2)             |
| Additional shelves  |          | MDF-T07ST-PW (set of 3)             |
| Temperature recorders   |          |                                     |
| - Circular type   |          | MTR-G85C-PE                         |
| - Chart paper   |          | RP-G85-PW                           |
| - Ink pen   |          | PG-R-PW                             |
| - Continuous strip type                                       |          | MTR-4015LH-PE                       |
| - Chart paper   |          | RP-40-PW                            |
| - Ink pen   |          |                                     |
| - Recorder housing  |          | MPR-S30-PW                          |

Appearance and specifications are subject to change without notice.

<sup>1)</sup> Exterior dimensions of main cabinet only, excluding handle and other external projections - See dimensions drawings on website for full details

<sup>2)</sup> Air temperature measured at freezer centre, ambient temperature +30°C, no load

<sup>3)</sup> Nominal value - Background noise 20dB

\* Complies with Art. 11, Annex III of F-Gas Regulation (EU) No 517/2014. Contains fluorinated greenhouse gases.

**PHCbi**

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